DOCUMENT RESUME

ED 479 247 IR 022 037

AUTHOR	Penrod, James; Perry, Barbara
TITLE	Virtual University--A Higher Education Administration Simulation and Learning Tool.
PUB DATE	2003-04-00
NOTE	18p.; In: Teaching, Learning, & Technology: The Challenge Continues. Proceedings of the Annual Mid-South Instructional Technology Conference (8th, Murfreesboro, Tennessee, March 30-April 1, 2003); see IR 022 027. Screenshots may not reproduces clearly.
AVAILABLE FROM	For full text: http://www.mtsu.edu/~itconf/proceed03/106.html/.
PUB TYPE	Reports - Evaluative (142) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	*College Administration; *Computer Assisted Instruction; *Computer Simulation; *Courseware; Higher Education; *Instructional Design; Learner Controlled Instruction; Student Attitudes; Teacher Attitudes; *Virtual Universities
IDENTIFIERS	*Learner Centered Instruction

ABSTRACT

This paper describes Virtual University (VU), a simulation of higher education administration that provides graduate students an instructional tool that offers an active learning environment, develops intrinsic motivation to learn, and serves as a practical, concrete learning experience. The first section describes VU, including features available to simulation participants and the areas of university management highlighted (i.e., resources allocation and finance, academic operations, faculty roles and responsibilities, enrollment management, sponsored research, and physical plant activities). The second section addresses how theory informs practice, including the principles of learner-centered teaching and how VU enables learner-centered teaching. The third section presents comments from faculty and students who have utilized VU. The fourth section offers recommendations for future developments. Several screenshots are appended. (Contains 10 references.) (MES)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 479 247

Virtual University-A Higher Education Administration Simulation and Learning Tool

By: James Penrod, & Barbara Perry

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

R.C. Jones

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

IR022037

BEST COPY AVAILABLE

Eighth Annual
Mid-South Instructional Technology Conference
Teaching, Learning, & Technology
The Challenge Continues
March 30-April 1, 2003

2003 Conference Proceedings

Virtual University- A Higher Education Administration Simulation and Learning Tool

By: James Penrod, Barbara Perry
Track 1 - Effective Technology Based Learning Environments
Interest: General :: Lecture/Presentation :: Level: All

Abstract

Remember all of the times you considered, if I were a member of the President's Cabinet or even President of this university, I could turn this place around? Now, you have your chance. Virtual University challenges the student, as a player, to be the president of a college or university. This first simulation of higher education administration provides graduate students an instructional tool which offers an active learning environment, develops intrinsic motivation to learn, and serves as a valuable, practical, concrete learning experience. The presentation will provide a demonstration of the simulation and discuss potential uses in the classroom.

Proceeding

Introduction

Colleges and universities are faced with a crisis in leadership. Current leaders are ill-prepared to meet the challenges of "lean resources, escalating competition, and hyperturbulent change" (Cameron and Quinn, 1999). Consequently, Cameron and Quinn suggest that "never has there been a period of time when effective managerial leadership is more crucial for organizational success" (p. 106). Virtual University provides an educational means to stem this crisis in leadership. This simulation is a powerful instructional tool that provides graduate students, current

administrators, and future leaders an opportunity to confront the complicated dilemmas of college and university leaders. We suggest graduate students who participate in the simulation, Virtual University, will be better able to meet the pressing challenges of college and university leaders. The subsequent informed decisions will help to ensure the organizational effectiveness and future success of the students' colleges and universities.

During this session, we will examine the educational benefits of utilizing a simulation, a software application, as an instructional tool. How does the use of this simulation enrich student learning? Why does the use of Virtual University stimulate student intrinsic motivation to learn, deep learning, and support learner-centered teaching? And finally after a look at Virtual University, do you see VU as a means to develop current graduate students of high education administration into effective leaders who contribute and maintain the organizational effectiveness of colleges and universities?

What is Virtual U?

William F. Massy, the Virtual University simulation creator, suggests "there's a lack of understanding about the systemic character of a university" (as cited in Blumenstyk, 2000, p. A51). Thus, Massey has created the first working simulation of the American university. Simulation participants:

- Engage in common scenarios and problems that college and university leaders face on daily basis
- Work in real time – decisions affect faculty hiring and firing, admissions selectivity, or budget allocations.
- Have access to financial and operational reports at any time to inform decision making
- Are able to choose from several scenarios to construct the campus or university of choice
- Receive an end of year presidential evaluation from the Board of Trustees

Massey used data from IPEDS (the Integrated Postsecondary Education Data System), the College Board, and the High School and Beyond Survey as the basis for the mathematical models that drive the variables of the game. The simulation provides players the opportunity to become the college or university president who must develop, implement, and change institutional parameters and policies that result in the success or failure of the college or university (Virtual University Website, October, 2002). Six areas of university management are highlighted: 1) resource allocation and finance; 2) academic operations; 3) faculty roles and responsibilities; 4) enrollment management; 5) sponsored research; and 6) physical plant activities. (See Appendix for screenshots)

Theory Informs Practice

Course construction impacts student learning. The literature suggests that simulation is, indeed, an effective instructional tool. Simulation was found to: improve motivation to learn a subject (Dekkers & Donatti, 1981), encourage active learning (McKeachie, 1994), improve critical thinking skills (Ellington & Perceval), improve classroom climate and teacher flexibility (Hertzmann, 1974), and improve transfer of learning to other situations (Reid, 1976). In this presentation, we consider how use of a simulation develops students' intrinsic motivation to learn and develops deep learning. Furthermore, we suggest that Virtual University enables learner-centered teaching.

Wlodkowski (1999) suggests that for the development and sustenance of intrinsic student motivation to learn, adult students must "successfully learn what they value and want to learn in an enjoyable manner" (p. 14). Moreover, "adults by social definition, individual need, and institutional expectation are responsible people who seek to enhance their identity through learning that further develops their competencies" (p. 12). While thought, feeling, and action are directed toward making meaning, interest, involvement and a search for understanding characterize adults' intrinsic motivation to learn. The challenge for the instructor is to find this balance of "success + volition + value + enjoyment" (p. 14).

We suggest that the Virtual University provides the foundation for the development of student intrinsic motivation to learn. Graduate students engaged in the study of higher education administration should welcome the opportunity to participate in the realistic operation of a college and university. The dynamic environment of the simulation enlivened by a sense of competition generates student interest, requires student involvement and should elicit the student to search for understanding as the student thinks, engages feelings, acts and in fact, learns.

Weigel (2002) proposes that the use of technology in the classroom will enable deep learning. Moreover, he suggests that "although wisdom can in no way be programmed into a curriculum, it is possible to create learning environments that nurture its development by reflecting on the larger meaning and significance of a student's encounter with new knowledge" (p. xvi), or "learning that promotes the development of conditionalized knowledge and metacognition through communities of inquiry" (p. 5).

Furthermore, Weigel (2002) suggests that problem-based learning is a primary instructional strategy in the development of conditionalized knowledge. We propose that Virtual U, a simulation of a realistic college of university scenario with time constraints and impending executive evaluation and consequences, is a problem-based learning endeavor. In fact, participants readily learn when and where the content learned from Virtual University is useful. And, the simulation provides real time feedback to participant decision. Furthermore, metacognition, the art of thinking, enables self reflection for students on individual personal level of understanding as a result of participation in Virtual University. Immediate feedback enables participants to gauge individual level of understanding and if necessary remedy any deficiencies. Finally, the simulation generates discussion

among participants and the facilitator which fosters the community of inquiry.

Thus, students who are intrinsically motivated to learn will enjoy deep learning. Yet, it is the instructor's responsibility to utilize the principles of learner-centered teaching to foster this learning process. Weimer (2002) suggests five principal changes from traditional teaching methodology to foster learner-centered teaching: 1) a change in balance of power, 2) a change in the function of content, 3) a change in the role of the teacher, 4) a change in the responsibility for learning, and 5) a change in the purpose and processes of evaluation.

Theory Supports Practice-Learner- Centered Teaching Principles Support the Practice of Virtual University

Principles of Learner-Centered Teaching	VU – How the simulation enables Learner-Centered Teaching
A Change in the Balance of Power	Instructor facilitates – Students control process and progress
A Change in the Function of Content	VU helps students develop self-directed learning skills and enables individual student assessment and critical reflection as a result of immediate simulation feedback
A Change in the Role of Teacher	Instructor's role is to design the course. In the simulation, instructor is forced to be a facilitator. VU helps students experience discovery and learn through collaboration
A Change in the Responsibility for Learning	Individually or collectively, students must make the decisions to move through the simulation in real time
A Change in the Purpose and Process of Evaluation	Students receive immediate evaluation through simulation feedback which allows for critical reflection and learning

Thus, the VU provides ample opportunity for the instructor to make the changes Weimer proposes. She suggests that "learner-centered instruction involves a reallocation of power in the classroom. Faculty members are required to give students some control over those learning processes that directly affect them" (2002, p. 45). Consequently, instructors must "guide and facilitate learning" (p. 74). Although this concept is not new, facilitation must occur for learner-centered teaching to occur. In addition, Weimer notes that content becomes the means whereby learning outcomes are explicitly advanced. Finally, learner-centered teaching enlarges the purpose of evaluation; evaluation does not solely generate grades but promotes learning.

Student and Faculty Assessment of VU – The Instructional Tool

Virtual University has only been used in courses since fall of 2001. Yet, the Virtual University website provides insightful comments from faculty who have utilized this instructional tool.

Faculty Comments

"I think VU's power is that it demonstrates the fundamental interconnectedness of decision-making; and yet at the same time depicts the indirect nature of colleges and universities." (Joanne Burrows, Indiana State University).

"VU allows students to model how an entire institution functions – especially if, in their current positions as administrators, they have become stuck in their own trenches. . . For, perhaps, the first time in their careers in higher education, they can clearly see how a decision made in one area impacts another." (Joshua Powers, Indiana State University).

"Students tend to remember better what they have learned when the educational experience is engaging and the knowledge is applied." (Myra Strober, Stanford University).

"Virtual U is an excellent tool for students to gain an understanding of the complexities of higher education administration. It can be used very effectively to illustrate the cause and effect relationship of decision-making policies." (Kevin Kinser, State University of New York, Albany)

"You need to see VU to really understand the potential of the product . . . I think the significant thing about this tool is its ability to demonstrate the complexity of decision-making in fairly realistic terms." (James Penrod, University of Memphis)

Student Comments

We asked students in Higher Education Administration at University of Memphis to provide feedback about the impact of VU on their learning experience. Students were asked to discuss the merits and problems with the use of VU as an instructional tool. Student comments include:

"The simulation enabled me to see the inner workings of budget, faculty, and a board of directors. The game provided an opportunity to experience a real-life scenario based on institution-wide decisions."

"Decisions made as a president directly and indirectly impact the president's standing with the board of trustees, faculty, staff, and students. A president has to be able to look at every area of the university and determine the priorities based on the board, the faculty, and the students."

"I felt as if the simulation helped me to see the type of things that I will encounter if I am ever in a senior administrative position. Also, it opened my eyes to the importance of communication. . . It made me aware of how a small decision could affect so many things in a variety of ways."

"I feel that the game is a remarkable tool in adult education and administration. Yet, there should be some changes in how faculty and staff communicate with the president of the university."

"I feel the simulation was a great tool for learning. It allowed the learner to see the possibilities of what could have if administration had the flexibility to change budgets, personnel, etc. Although the game proved the importance of communication, the player could not speak with personnel to find out why things were as they were, and you had to make decisions blindly."

"I was disappointed that we were not able to communicate with the faculty, staff, and board of trustees."

"I was extremely frustrated with the time that this project took. I never had a clear understanding of how the game worked and what we were supposed to do."

"I found myself in situations where faculty and staff resigned due to things of was unaware of. I feel that there should be some type of way of corresponding with faculty."

"The results of my decisions were not always good but you learned to live with them. I suppose that administrators in higher education go through much the same feelings that I felt when my decisions to make changes did not bring about positive results."

Next Steps, New Directions

Virtual University adopters and students offer suggestions to the simulation's creators for innovation and change. Students request an interactive component whereby they are able to communicate with faculty and administration and discover background information when making decisions. Moreover, students request a simple overview of the mechanics of the game. With a broad range of student technical expertise, an attempt must be made of the instructor and technical support to level the playing field for students. Some recommendations include:

- Give students a glossary of terms and discuss unfamiliar definitions as they are used in the game.
- Provide student with "hints and strategies" for playing the game
- Do an in-class tutorial focusing on areas that involve extensive decision-making such as faculty and budgets
- Use a scavenger hunt to encourage student to explore the game more fully

- Have students work in groups to benefit from individual areas of expertise and encourage peer learning. Faculty adopters concur with student recommendations and add a few more ideas for improvement.
- Prepare students for the technical process of decision-making but also for the institutional strategies that administrators utilize. Instructors should familiarize students with a means to develop budget priorities, show students how to read VU's graphs and how budgeting and faculty decisions impact presidential performance appraisals.
- Inform students of the importance of taking precise notes to reflect decisions made for future reference
- Carefully choose readings to augment the events of the simulation. Readings in performance budgeting, strategic planning, educational policy are suggested.
- The sooner the participants make decisions with the Virtual University, the better their learning experience

VU is a powerful instructional tool. The simulation enhances student learning and impacts courses in higher education administration and the finance of higher education. It provides an opportunity to model the relationship between departmental decisions and senior administrative decisions. We see this simulation as a means to demonstrate to graduate students in higher education the need for administrative alignment and coordination in policy decisions within an institution. Students quickly see the impact of budgetary decisions for one institutional management area on other institutional management areas

Future Directions – VU – An Instructional Tool for Higher Education Administration

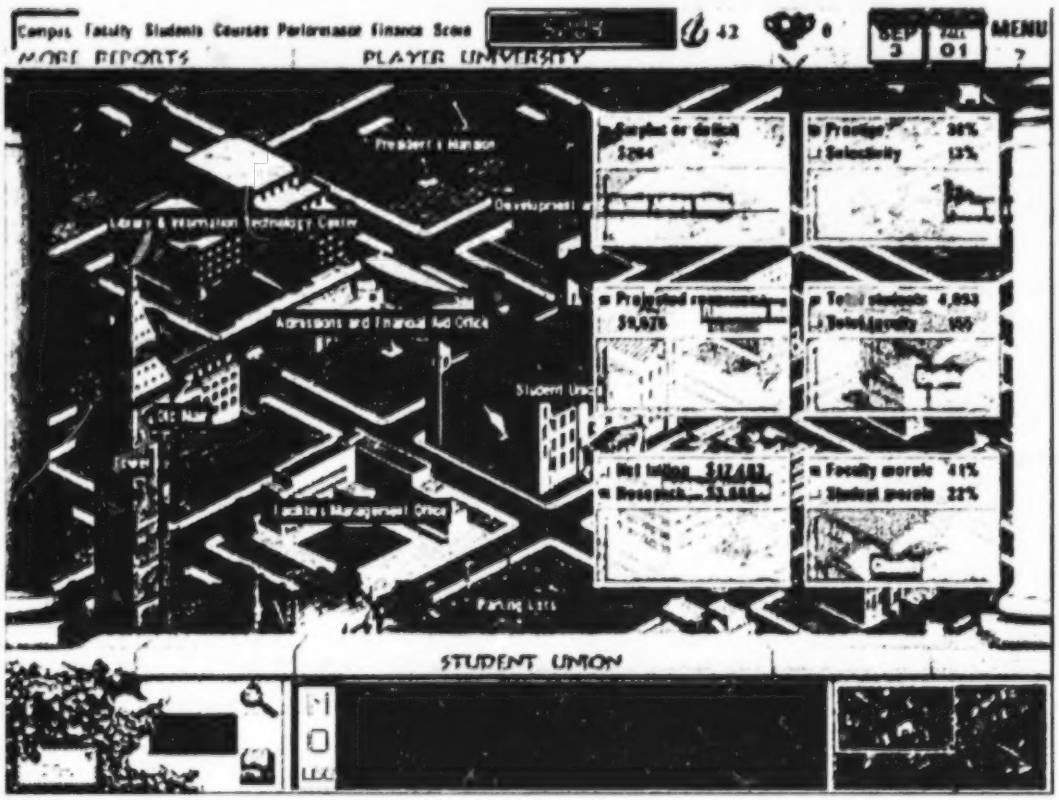
We suggest that the simulation would be beneficial in a variety of courses in higher education: higher education finance, higher education administration, trends in higher education, higher education leadership, as the basis for a capstone course, or a course studying the professoriate. In addition, we see VU as a useful tool to train new department chairs providing them with a viable review of the issues and dilemmas of higher education which currently impact academic leaders as decisions are made. We ask that you consider how this tool could be helpful in other disciplines beyond higher education administration? For instance, does the simulation raise pertinent issues for sociology and political science?

Conclusion

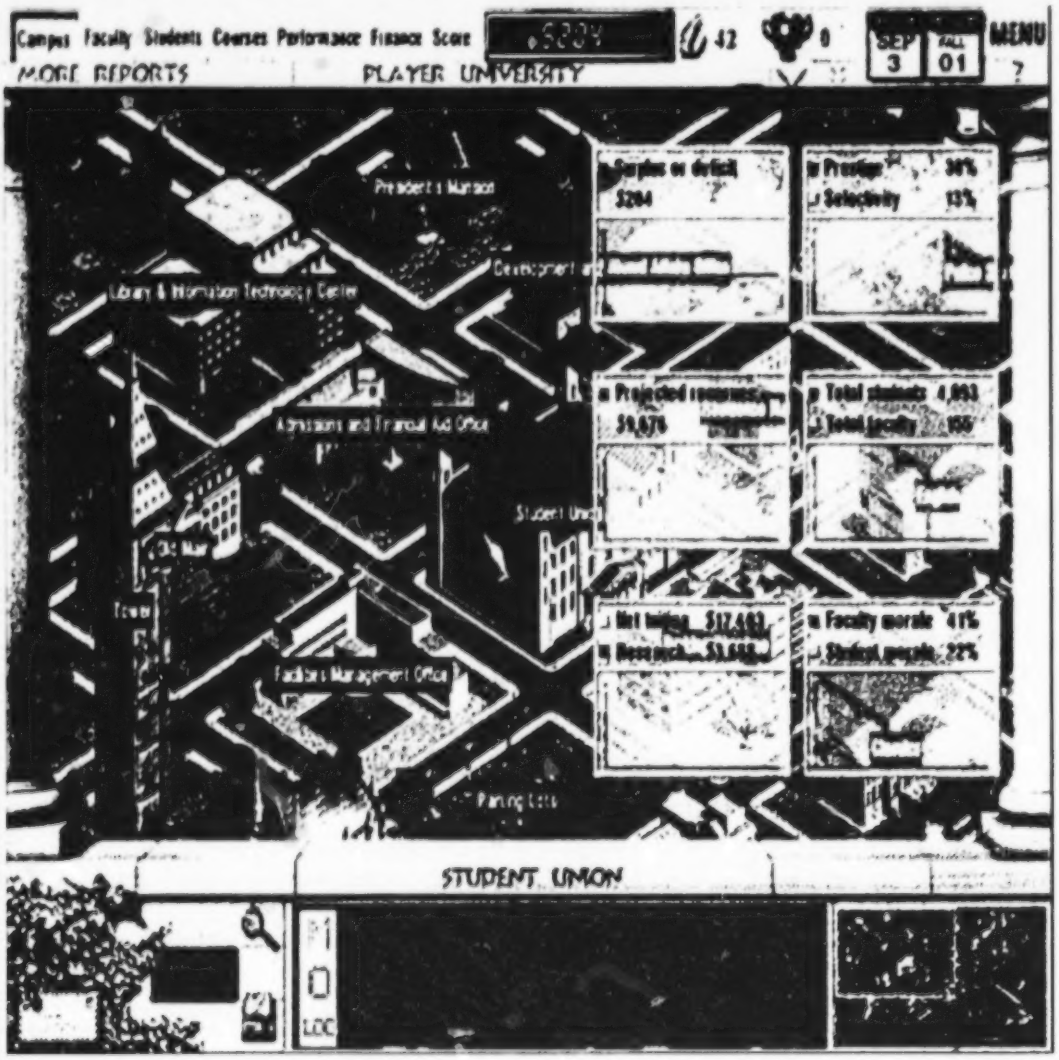
Colleges and universities are faced with a crisis in leadership. In fact, current academic leaders are ill-prepared to meet the challenges of "lean resources, escalating competition, and hyperturbulent change" (Cameron and Quinn, 1999). Furthermore, as William F. Massey, the creator of Virtual University suggests, an urgent need exists for academic leaders to understand the systematic nature of colleges and universities. We believe that Virtual University, the first working simulation of an American university, provides an educational means to stem this crisis in leadership. We propose that this active learning experience provides an extraordinary option for students to readily experience and learn the vital

importance of institutional policy alignment and coordination in academic leaders' decision-making. In fact, VU illustrates the impact of managerial leadership on organizational effectiveness and success. Moreover, we believe that the simulation enriches the graduate students' learning experience by stimulating student intrinsic motivation to learn and deep learning enhanced by pedagogical excellence - learner-centered teaching.

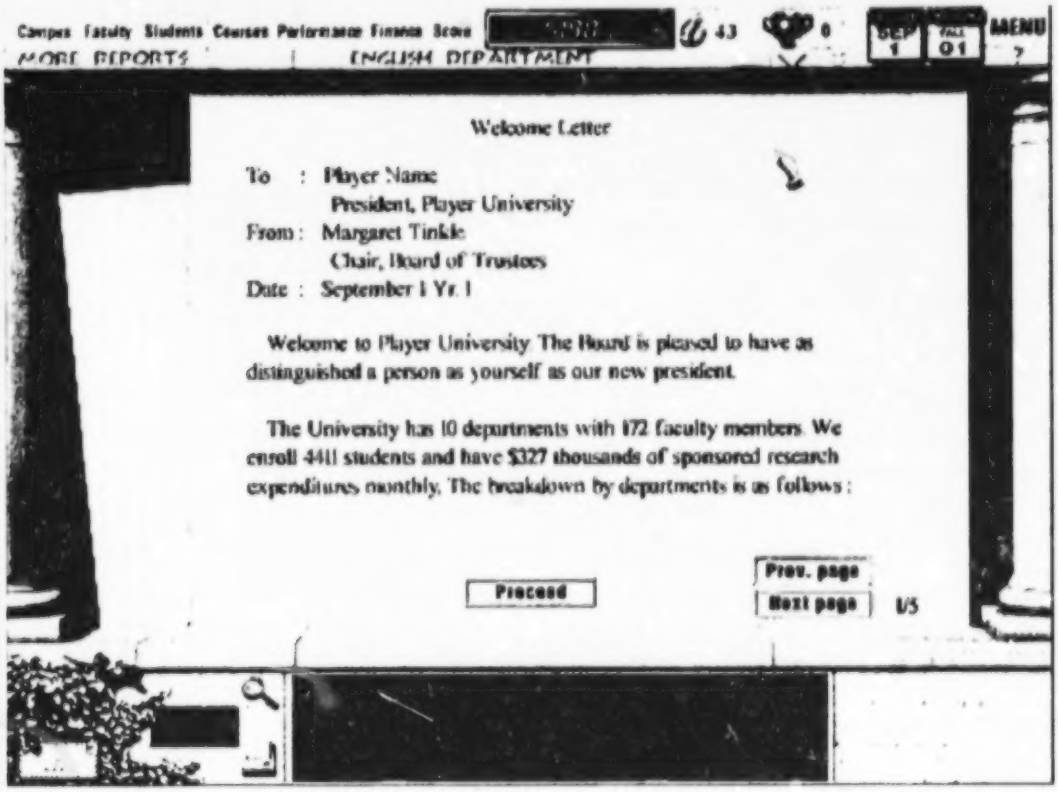
Screenshots



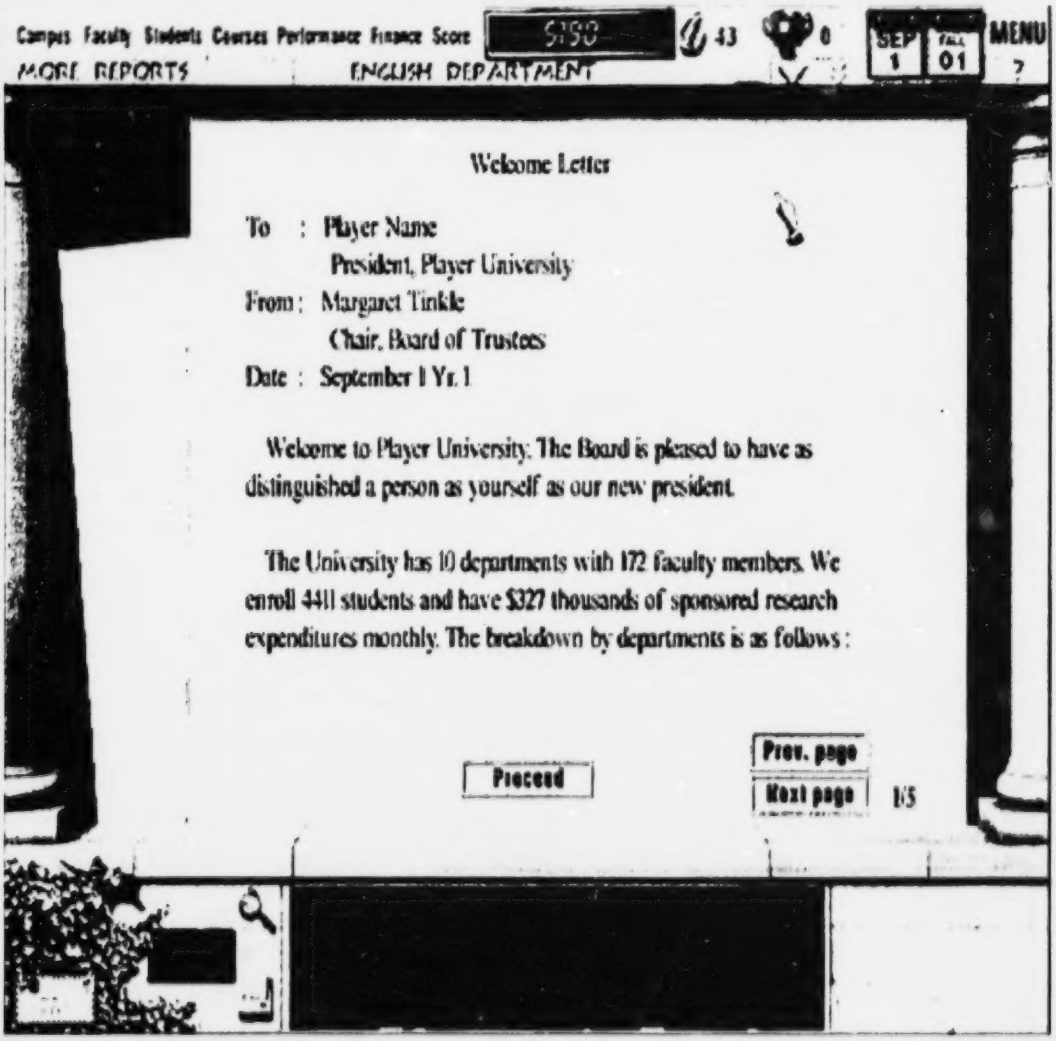
BEST COPY AVAILABLE



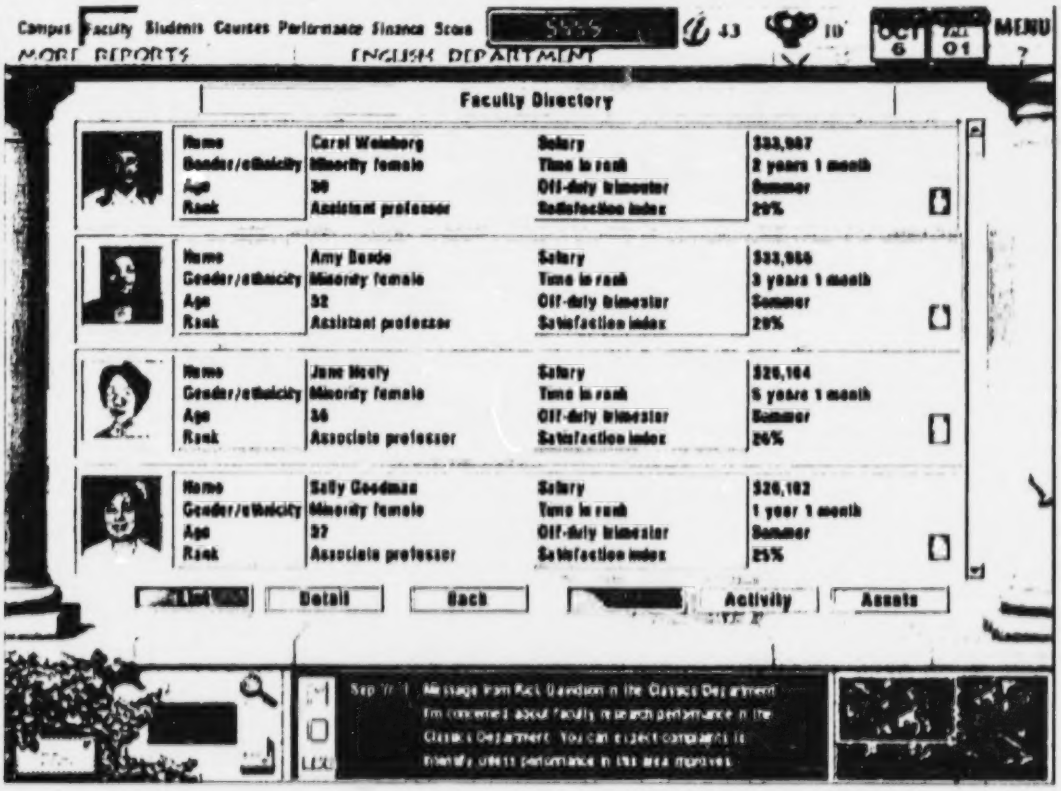
BEST COPY AVAILABLE


Campus Faculty Students Courses Performance Finance Score
43
0
SEP 1
YR1 01
MENU 7
MORE REPORTS
ENGLISH DEPARTMENT
Welcome Letter
To : Player Name
President, Player University
From : Margaret Tinkle
Chair, Board of Trustees
Date : September 1 Yr. 1
Welcome to Player University The Board is pleased to have as distinguished a person as yourself as our new president.
The University has 10 departments with 172 faculty members. We enroll 4411 students and have $327 thousands of sponsored research expenditures monthly. The breakdown by departments is as follows :
Proceed
Prev. page
Next page
1/5

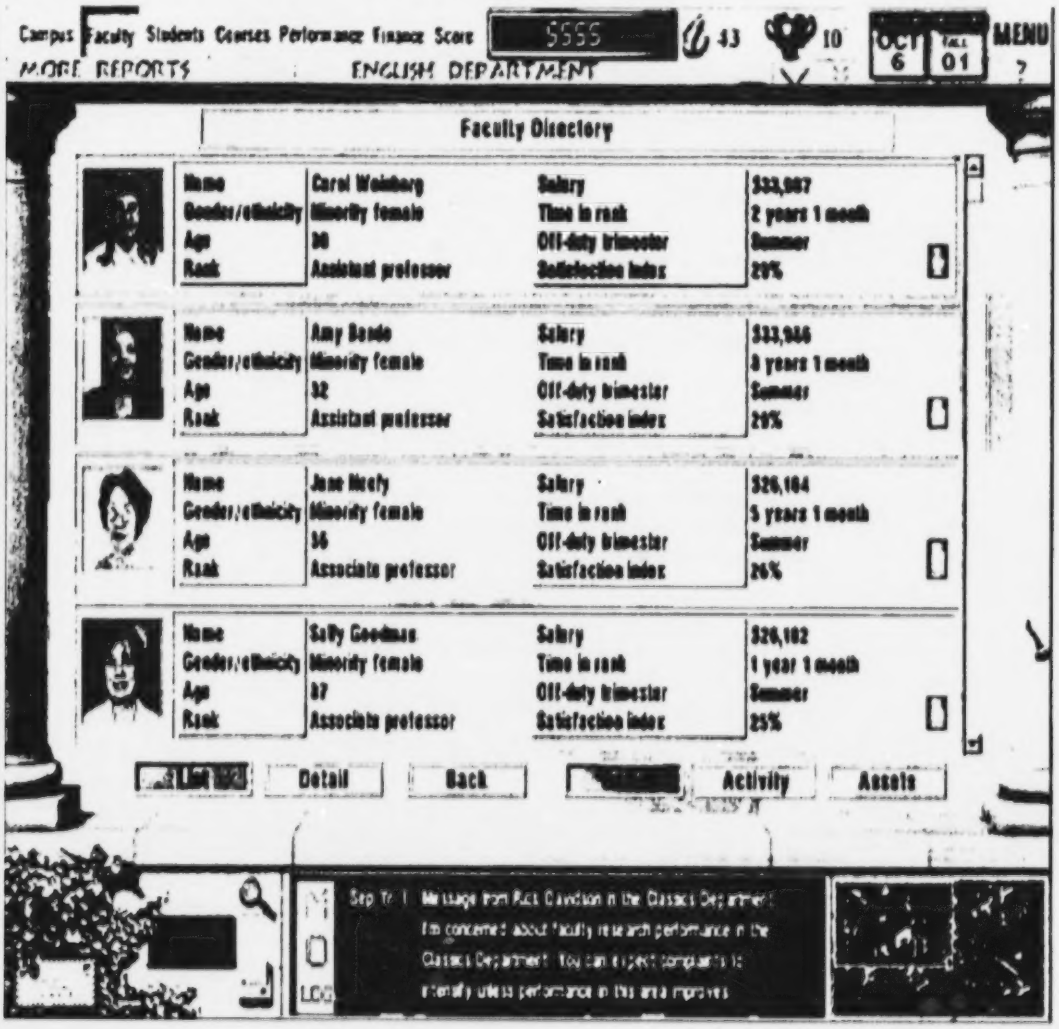
BEST COPY AVAILABLE


Campus Faculty Students Courses Performance Finance Score
$150
43
0
SEP 1
Fall 01
MENU
MORE REPORTS
ENGLISH DEPARTMENT
Welcome Letter
To : Player Name
President, Player University
From : Margaret Tinkle
Chair, Board of Trustees
Date : September 1 Yr. 1
Welcome to Player University. The Board is pleased to have as distinguished a person as yourself as our new president.
The University has 10 departments with 172 faculty members. We enroll 4411 students and have $327 thousands of sponsored research expenditures monthly. The breakdown by departments is as follows :
Proceed
Prev. page
Next page
1/5

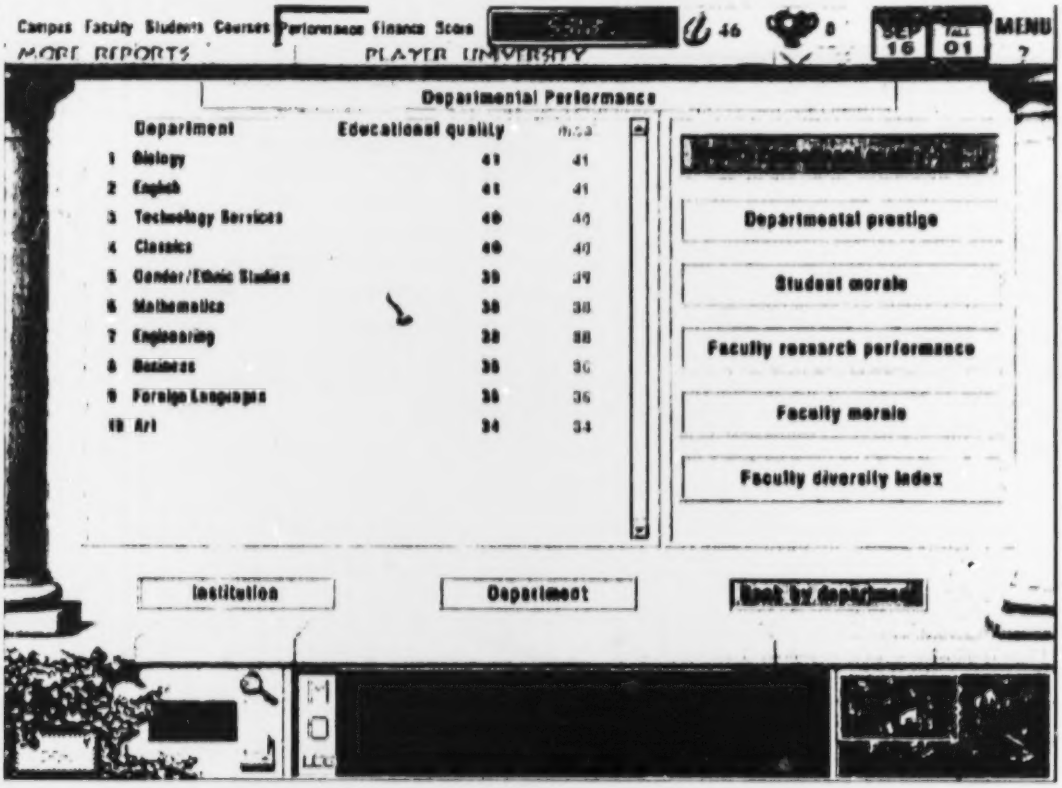
BEST COPY AVAILABLE



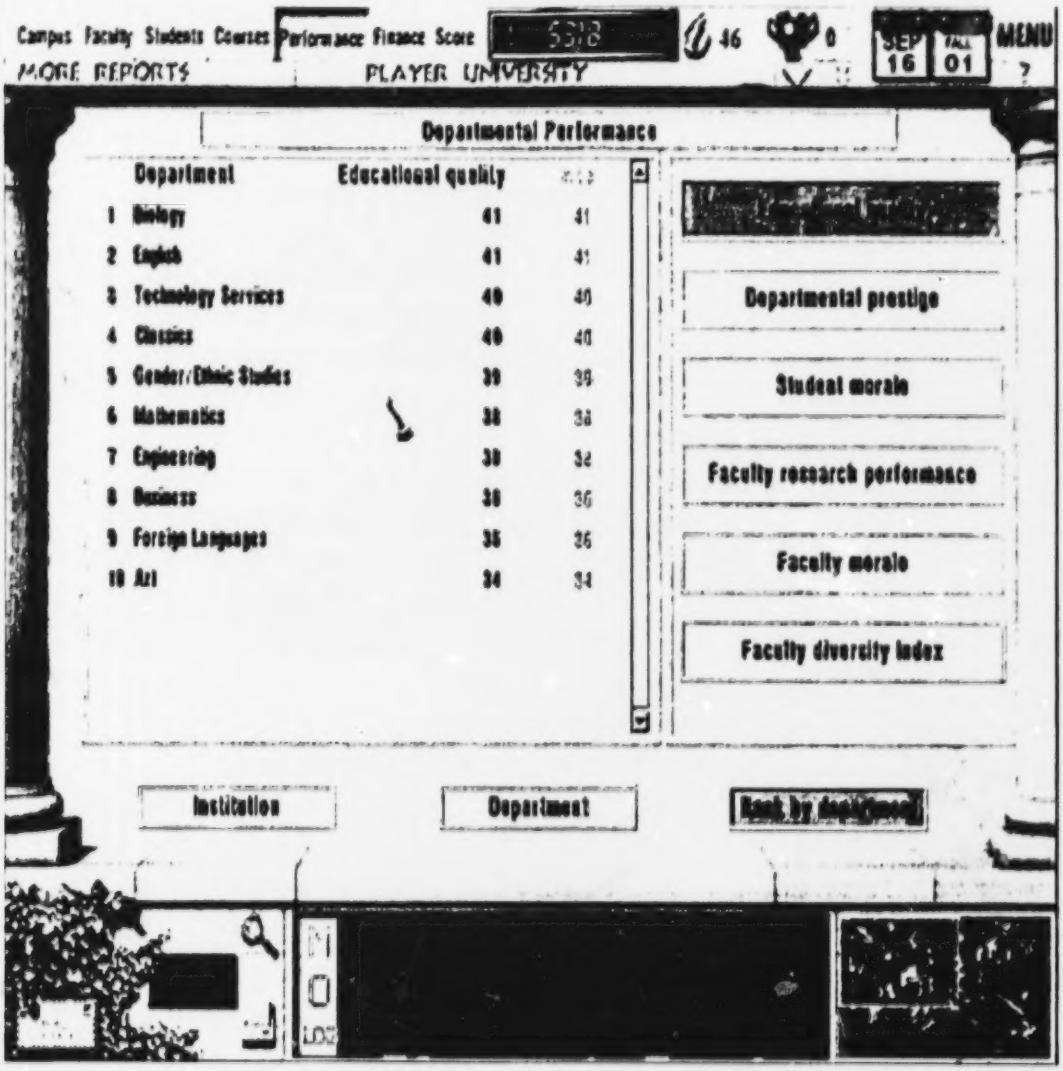
BEST COPY AVAILABLE



BEST COPY AVAILABLE



BEST COPY AVAILABLE



References

Blumenstyk, B. (2000). A computer game lets you manage the university. *Chronicle of Higher Education, 46*(28), A51. Retrieved September 8, 2002 from the World Wide Web: http://www.chronicle.com.

Cameron, K. & Quinn, R. (1999). *Diagnosing and changing organizational culture.* Reading: Addison Wesley Longman, Inc.

Dekkers, J. & Donatti, S. (1981). The integration of research studies on the use of simulation as an instructional strategy. *Journal of Educational Research, 74*, 424-427.

Ellington, H. & Percival, F. (1974). Educating through science using multidisciplinary simulation games. *PLET, 14*, 117-126.

BEST COPY AVAILABLE

Heitzmann, W. R. (1974). *Educational games and simulations.* Washington Science Teachers Association.

McKeachie, W. J. (1994). *Teaching tips: Strategies, research, and theory for college and university teachers* (9th ed.). Lexington, MA: D. C. Heath.

Virtual University (2001). *Virtual Univeristy.* Retrieved December 8, 2002 from the World Wide Web: http://virtual-u.org.

Weigel, V. (2002). *Deep learning for a digital age.* San Francisco: Jossey-Bass.

Weimer, M. (2002). *Learner-centered teaching: Five key changes to practice.* San Francisco: Jossey-Bass.

Wlodkowski, R. (1999). *Enhancing adult motivation to learn.* San Francisco: Jossey-Bass.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

[X] This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

[ ] This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").